

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Original) A printing apparatus, comprising: a movable head that performs recording on a medium using ink; a first sensor that can move together with said head and that detects regular reflection light from said medium; and a second sensor that is provided separately from said first sensor, that can move together with said recording head and that detects diffuse reflection light from said medium.
2. (Original) A printing apparatus, comprising: a carry unit that carries a medium in a carrying direction; a movable head that performs recording on a medium using ink; a first sensor that can move together with said head and that detects an edge of said medium; and a second sensor that can move together with said head and that detects a pattern formed on said medium by said head; wherein said first sensor is provided further upstream with regard to said carrying direction than said second sensor.
3. (Original) A printing apparatus according to claim 1, wherein said first sensor is provided further upstream with regard to a carrying direction in which said medium is carried than said second sensor.
4. (Original) A printing apparatus according to claim 1, wherein said first sensor includes a light-emitting section and a light-receiving section; said second sensor includes a light-emitting

section and a light-receiving section; and a direction in which said light-emitting section and said light-receiving section of said first sensor are arranged is different from a direction in which said light-emitting section and said light-receiving section of said second sensor are arranged.

5. (Original) A printing apparatus according to claim 4, wherein said light-emitting section and said light-receiving section of said first sensor are arranged in a direction in which said medium is carried; and said light-emitting section and said light-receiving section of said second sensor are arranged in a direction in which said head is moved.

6. (Original) A printing apparatus according to claim 1, wherein said first sensor is a sensor for detecting an edge of said medium.

7. (Original) A printing apparatus according to claim 1, wherein said second sensor is a sensor for detecting a pattern formed on said medium by said head.

8. (Original) A printing apparatus according to claim 2, wherein said first sensor includes a light-emitting section and a light-receiving section; said light-emitting section of said first sensor irradiates light onto said medium; and said light-receiving section of said first sensor receives regular reflection light from said medium.

9. (Original) A printing apparatus according to claim 2, wherein said second sensor includes a light-emitting section and a light-receiving section; said light-emitting section of said second

sensor irradiates light onto said medium; and said light-receiving section of said second sensor receives diffuse reflection light from said medium.

10. (Currently Amended) A printing apparatus according to claim ~~6 or 2~~,

wherein said carry unit is controlled in accordance with the detection result of said first sensor.

11. (Currently Amended) A printing apparatus according to claim ~~6 or 2~~,

wherein said head is controlled in accordance with the detection result of said first sensor.

12. (Currently Amended) A printing apparatus according to claim ~~6 or 2~~,

wherein said first sensor detects a lateral edge of said medium; and
a region onto which ink is to be ejected from said head is determined in accordance with the result of detecting said lateral edge.

13. (Currently Amended) A printing apparatus according to claim ~~6 or 2~~,

wherein said first sensor detects an upper edge of said medium; and
said carry unit carries said medium to a print start position in accordance with the result of detecting said upper edge.

14. (Currently Amended) A printing apparatus according to claim ~~6 or 2~~,

wherein said first sensor detects a lower edge of said medium; and

a region onto which ink is to be ejected from said head is determined in accordance with the result of detecting said lower edge.

15. (Currently Amended) A printing apparatus according to claim 7-~~or~~2,
wherein an ejection test of said head is performed in accordance with the result of detecting said pattern with said second sensor.

16. (Original) A printing apparatus according to claim 15,
wherein a process of cleaning said head is performed in accordance with the detection result of said second sensor.

17. (Currently Amended) A printing apparatus according to claim 1-~~or~~2,
wherein said head can eject said ink while moving in a forward pass and in a return pass;
and
locations at which ink is to be ejected from said head are determined in accordance with the detection result of said second sensor.

18. (Currently Amended) A printing apparatus according to claim 1-~~or~~2,
wherein the type of said medium is detected from the detection result of said first sensor and the detection result of said second sensor.

19. (Original) A printing apparatus according to claim 18,

wherein said head performs the recording on said medium in accordance with the type of said medium.

20. (Original) A printing apparatus, comprising:

a movable head that performs recording on a medium using ink;

a first sensor that can move together with said head and that detects regular reflection light from said medium; and

a second sensor that is provided separately from said first sensor, that can move together with said recording head and that detects diffuse reflection light from said medium:

wherein said first sensor is provided further upstream with regard to a carrying direction in which said medium is carried than said second sensor;

said first sensor includes a light-emitting section and a light-receiving section;

said second sensor includes a light-emitting section and a light-receiving section;

a direction in which said light-emitting section and said light-receiving section of said first sensor are arranged is different from a direction in which said light-emitting section and said light-receiving section of said second sensor are arranged;

said light-emitting section and said light-receiving section of said first sensor are arranged in the direction in which said medium is carried;

said light-emitting section and said light-receiving section of said second sensor are arranged in a direction in which said head is moved;

said first sensor is a sensor for detecting an edge of said medium;

said carry unit is controlled in accordance with the detection result of said first sensor;

said head is controlled in accordance with the detection result of said first sensor;

said first sensor detects a lateral edge of said medium, and a region onto which ink is to be ejected from said head is determined in accordance with the result of detecting said lateral edge;

said first sensor detects an upper edge of said medium, and said carry unit carries said medium to a print start position in accordance with the result of detecting said upper edge;

said first sensor detects a lower edge of said medium, and a region onto which ink is to be ejected from said head is determined in accordance with the result of detecting said lower edge;

said second sensor detects a pattern formed on said medium by said head;

an ejection test of said head is performed in accordance with the result of detecting said pattern with said second sensor;

a process of cleaning said head is performed in accordance with the detection result of said second sensor;

said head can eject said ink while moving in a forward pass and in a return pass;

locations at which ink is to be ejected from said head are determined in accordance with the detection result of said second sensor;

the type of said medium is detected from the detection result of said first sensor and the detection result of said second sensor; and

said head performs the recording on said medium in accordance with the type of said medium.

21. (Original) A printing apparatus, comprising:

a carry unit that carries a medium in a carrying direction;

a movable head that performs recording on a medium using ink;

a first sensor that can move together with said head and that detects an edge of said medium; and

a second sensor that can move together with said head and that detects a pattern formed on said medium by said head;

wherein said first sensor is provided further upstream with regard to said carrying direction than said second sensor;

said carry unit is controlled in accordance with the detection result of said first sensor;

said head is controlled in accordance with the detection result of said first sensor;

said first sensor detects a lateral edge of said medium, and a region onto which ink is to be ejected from said head is determined in accordance with the result of detecting said lateral edge;

said first sensor detects an upper edge of said medium, and said carry unit carries said medium to a print start position in accordance with the result of detecting said upper edge;

said first sensor detects a lower edge of said medium, and a region onto which ink is to be ejected from said head is determined in accordance with the result of detecting said lower edge;

an ejection test of said head is performed in accordance with the result of detecting said pattern with said second sensor;

a process of cleaning said head is performed in accordance with the detection result of said second sensor;

said head can eject said ink while moving in a forward pass and in a return pass;

locations at which ink is to be ejected from said head are determined in accordance with the detection result of said second sensor;

the type of said medium is detected from the detection result of said first sensor and the detection result of said second sensor;

said head performs the recording on said medium in accordance with the type of said medium;

said first sensor includes a light-emitting section and a light-receiving section;

said light-emitting section of said first sensor irradiates light onto said medium;

said light-receiving section of said first sensor receives regular reflection light from said medium;

said second sensor includes a light-emitting section and a light-receiving section;

said light-emitting section of said second sensor irradiates light onto said medium; and

said light-receiving section of said second sensor receives diffuse reflection light from said medium.

22. (Original) A printing system comprising: a computer; and a printing apparatus, said printing apparatus including: a movable head that performs recording on a medium using ink; a first sensor that can move together with said head and that detects regular reflection light from said medium; and a second sensor that is provided separately from said first sensor, that can move together with said recording head and that detects diffuse reflection light from said medium.

23. (Original) A printing system comprising:

a computer; and a printing apparatus, said printing apparatus including: a carry unit that carries a medium in a carrying direction; a movable head that performs recording on a medium using ink; a first sensor that can move together with said head and that detects an edge of said

medium; and a second sensor that can move together with said head and that detects a pattern formed on said medium by said head; wherein said first sensor is provided further upstream with regard to said carrying direction than said second sensor.

24. (New) A printing apparatus according to claim 2,

wherein said carry unit is controlled in accordance with the detection result of said first sensor.

25. (New) A printing apparatus according to claim 2,

wherein said head is controlled in accordance with the detection result of said first sensor.

26. (New) A printing apparatus according to claim 2,

wherein said first sensor detects a lateral edge of said medium; and
a region onto which ink is to be ejected from said head is determined in accordance with the result of detecting said lateral edge.

27. (New) A printing apparatus according to claim 2,

wherein said first sensor detects an upper edge of said medium; and
said carry unit carries said medium to a print start position in accordance with the result of detecting said upper edge.

28. (New) A printing apparatus according to claim 2,

wherein said first sensor detects a lower edge of said medium; and
a region onto which ink is to be ejected from said head is determined in accordance with the result of detecting said lower edge.

29. (New) A printing apparatus according to claim 2,

wherein an ejection test of said head is performed in accordance with the result of detecting said pattern with said second sensor.

'30. (New) A printing apparatus according to claim 2,

wherein said head can eject said ink while moving in a forward pass and in a return pass;
and locations at which ink is to be ejected from said head are determined in accordance with the detection result of said second sensor.

31. (New) A printing apparatus according to claim 2,

wherein the type of said medium is detected from the detection result of said first sensor and the detection result of said second sensor.

32. (New) A printing apparatus according to claim 29,

wherein said carry unit is controlled in accordance with the detection result of said first sensor.

33. (New) A printing apparatus according to claim 31,

wherein said head performs the recording on said medium in accordance with the type of said medium.